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ABSTRACT

McDougal, Littell and Company has designed the geography program called "Daily Geography" which incorporates geography into the daily social studies curriculum. "Daily Geography" aims to increase students' knowledge and understanding of the physical aspects of geography. A study tested the "Daily Geography" program to determine if it helps students improve their geography test scores. Subjects were 24 fourth-grade students from a school in eastern Tennessee. Along with the test, each student completed an attitude survey about geography. The class served as both the control group and the experimental group. The study took 10 weeks. During the first 5 weeks the class served as the control group, using only their regular social studies program. During the second 5 weeks the class served as the experimental group. At the beginning of week 6, students were given a geography pretest and an attitude survey. Then, "Daily Geography" was used in the classroom, and students were given two geography questions per day and allowed to use any resource. Later the class discussed the answers to each question. During this time, the regular social studies program was used. At the end of the tenth week, students were given a geography posttest and an attitude survey that assessed final knowledge in geography. In the end, no statistical difference with and without the use of "Daily Geography" was found, and attitudes did not change. The use of "Daily Geography" did not increase the students' knowledge and understanding of physical and political concepts in geography over those who do not use this program. (Contains 4 tables of data, a 19-item bibliography, and several appendixes.) (BT)

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ABSTRACT

A COMPARISON OF STUDENTS' UNDERSTANDING OF POLITICAL AND PHYSICAL ASPECTS OF GEOGRAPHY WITH THE USE OF THE PROGRAM *DAILY GEOGRAPHY*

An Action Research Project

Presented to the

Department of Teacher Education

Johnson Bible College

In Partial Fulfillment

of the Requirement for the Degree

Master of Arts in Holistic Education

SO 031 148

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by

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August 1999

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ABSTRACT

Students often do not see how geography relates to other subjects, so students do not find the usefulness in learning geography. Often teachers do not actively teach geography. Consequently, students lack important concepts in geography. Students must develop skills in geography so that they may increase their understanding of the world around them.

McDougal, Littell and Company have designed the geography program called *Daily Geography*. This program incorporates geography into the daily social studies curriculum. *Daily Geography* aims to increase students' knowledge and understanding of the physical and political aspects of geography. This study tested the *Daily Geography* program in order to determine if it helps students improve their geography test scores. Along with each test, each student completed an attitude survey about geography.

The subjects of the study came from a fourth grade classroom in eastern Tennessee. The fourth grade class served as both the control group and the experimental group. The study took ten weeks to complete. During the first five weeks, the class served as the control group. The students only used their regular social studies program. At the beginning of week one, students were given a geography pre-test and an attitude survey. Then, at the end of the fifth week, students were given a geography post-test and an attitude survey .

Then, the second half of the ten-week study, served as the experimental group time. At the beginning of week six, students were given a geography pre-test and an attitude survey. Then, *Daily Geography* was used in the classroom. Students were given

two geography questions a day to answer. They were allowed to use any resource that was available that would help them find the answer. Later in the day, the class discussed the answers to each geography question. Fridays served as review days for all the of geography questions. During this time, the regular social studies program was used. At the end of the tenth week, students were given another geography post-test and an attitude survey that assessed the students final knowledge in geography.

In the end, the researcher found no statistical difference with the use of geography and without the use of *Daily Geography*. Students' attitudes did not change with the use of *Daily Geography*. An independent t-test compared the pre-tests used during *Daily Geography*. The results showed no significance, at a 0.05 level of significance, at the beginning of week one. The use of *Daily Geography* did not increase the students' knowledge and understanding of physical and political concepts in geography over those who do not use this geography program, at the 0.05 level of significance. The use of *Daily Geography* did not change student's attitudes and opinions towards the desire to learn geography, at the 0.05 level of significance. The researcher retained the hypothesis. The results of this study are limited to one fourth grade class.

APPROVAL PAGE

This Action Research Project by Jennifer Lynn Canatsey is accepted in it present form by the Department of Teacher Education at Johnson Bible College as satisfying the research paper requirements for the degree Master of Arts in Holistic Education.

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Chapter 1

INTRODUCTION

Significance of the Problem

Public concern grows as elementary and secondary students continue to develop into geographic illiterate people. Students often do not see how geography relates to other subjects, so students do not find the usefulness in learning geography. Often teachers do not actively teach geography. Consequently, students lack important concepts in geography. Students must develop skills in geography so that they may increase their understanding of the world around them (Cohen, p.248-249).

In order for the students to become effective world leaders, they must develop an understanding of the world around them. This involves understanding more than just the United States. This also involves an understanding of the world and other cultures. Interdependence between countries grows. No longer can Americans ignore other lands, people, customs, and languages (Reinhartz and Reinhartz, p. 14).

Statement about the Study

McDougal, Littell and Company have designed the geography program called *Daily Geography*. This program incorporates geography into the daily social studies curriculum. *Daily Geography* aims to increase students' knowledge and understanding of the physical and political aspects of geography. At the same time, it seeks to raise students' interest in geography. This study tested the *Daily Geography* program in order to determine if it helps students improve their geography test scores. Each student

completed an attitude survey towards geography, with the use of *Daily Geography* and without *Daily Geography.*

Statement of the Problem

The present study investigated whether the *Daily Geography* program serves as valid program that presents information in order to develop an interest and knowledge in geography, in an elementary school in eastern Tennessee.

Definition of Terms

Daily Geography For the purposes of this study, *Daily Geography* is the program designed McDougal, Littel and Company. The teacher gave the students two geography questions a day that focused on the themes of place and location.

Terra Nova test scores The Terra Nova test scores are the scores that students achieve on the Tennessee state achievement tests, called the Terra Nova. Every student in the state of Tennessee takes this achievement test on an annual basis.

Limitations within the Study

This study did present limitations. This study took ten weeks to complete. Due to this limited time schedule, the researcher used only a partial amount of the program *Daily Geography.* The program was designed for a full school year. The results of this study are limited to only one fourth grade classroom, in an urban elementary school, located in eastern Tennesee.

Assumptions

The researcher assumed that each child has an equal opportunity to learn within the classroom and that students had opportunities to be successful. The students fell into the same intelligence level. The researcher also assumed that the students' reading

abilities had no effect on the students' ability to understand geographic concepts. The teacher read all the geography questions to the students. The researcher expected one student not to understand the geography questions. She did not speak English as her first language. She had not acquired proficient English communication skills.

Hypothesis

The use of *Daily Geography* does not increase the students' knowledge and understanding of physical and political concepts in geography over those who do not use this geography program, at the 0.05 level of significance. The use of *Daily Geography* will not change students' attitudes and opinions towards the desire to learn geography, at the 0.05 level of significance.

Chapter 2

REVIEW OF RELATED LITERATURE

The Importance of Geographic Education

As education faces the twenty-first century, students must develop an understanding of the world around them. The world continues to grow more crowded. The economy has become competitive. The world grows more interconnected daily and this requires students to develop a greater understanding of geography. For many years now, education has sought for geography reform (Cohen, p. 248). This review of various literature concerning geography explores the subject of geography and the importance of studying geography. It examines how and why this country's students are illiterate in the area of geography and determine what geography skills they need to develop. Now, states can enforce new geography standards. Such states are beginning to place greater emphasis on geography reform. The subject of geography has many, different aspects to explore.

Our world is rapidly becoming a more global society. This calls for geographic literacy. Students must develop a spatial understanding so that people from all nations can work together. Teachers have a responsibility to prepare students to live in this global society. Children must become "spatially aware," so they do not become adults who do not understand the world around them (Reinhartz and Reinhartz, p.14).

Dulli describes why students should study geography? First, it helps them understand basic human survival. Second, it shows them how people live and the types

of jobs they do. Third, it shows people's dependence on the resources of the earth. Most importantly, it teaches students how to question. Students ask where things are located and why is it there. They wonder how the world operates and what causes it to operate. They begin to understand how people interact with their environment. Then, they realize how people can change the environment (Dulli and Goodman, p. 23).

Learning geography develops the ability to analyze data. This type of analyzing develops as students observe maps, photos, graphs, and even through field studies. Geography also teaches students about the complexity of the Earth's events. Spatial analysis teaches students that simple explanations do not exist. The successions of events influence the study of geography. Learning geography also contributes of the students' understanding of their own environment. Geography teaches that different civilizations have had different ways of affecting the world. Lastly, geography teaches that nations must depend on each other and people must depend upon each other (Pinchemel p. 11-12).

Geography as a Subject

The word "geography" comes from two Greek words. *Geo* means Earth, and *graphia* means description or depiction. Then, geography describes or depicts the earth. However, people can view the earth in many different ways (*Geography for Life: National Geography Standards*, p. 32). Geography is not isolated and irrelevant information about the earth. Rather, geography is the study of the spatial aspects of the world (p. 18). Geography seeks to bring together the physical world and the human world. It studies the relationship between people, places, and environments. It explores

the earth's surface, relationships between people and their environments, and the relationships between people and places (p. 18).

Geographers view the earth as a physical environment with atmospheric jet streams. Geographers also view it as an environment where people can live. The earth has many varied types of habitats, from the desert climates to the tropic rainforests. Geography describes the relationships between people and how they share the earth. People make modifications to the earth and change the way they use the land. Geographers look at all of these aspects and find connections between people and places (p. 32).

Geography in Relation to Other Subjects

Again, geography is not an isolated subject. Geography ties together every subject. With a greater understanding in geography, students can better understand other subjects. In Gloria Neubert's book, *Teaching Geography in the Disciplines*, she describes how geography relates across the curriculum.

Art Students should understand that people, their habits, and their resources affect art. Students need should learn to locate the artist's hometown and understand the person. When students study works from around the world, knowing the location of different countries is useful (Binko and Neubert, p. 36).

Literature In literature, students ought to understand a piece's setting, which is another geographic perspective. Students often have a difficult time understanding the story completely, without first visualizing the setting first. Students living in Los Angeles who do not understand geography might have a difficult time understanding an Asian setting (p. 39).

Foreign Language Students that study a foreign language should study the language of each culture. This develops an appreciation of cross-cultural differences. Another geographical perspective involves the relationships between various people (p. 41-42).

Music When students study music, they might want understand the origin of a piece of music. A geography lesson lies behind each piece of music. Many songs actually focus on a place. First, learning the background of a song is useful. It aids in understanding the meaning of the song. Many classical pieces depict foreign landscapes. Students can create mental images of the landscape in order to fully appreciate the pieces. Again, when studying pieces from other countries, students must first understand where the countries are located (p. 50-51).

Physical Education Even geography and physical education are related. In order to fully understand sports, students may find understanding the origin of sports useful and where athletes live. This includes learning the various regions that sports are more popular. Many sports began in different countries. Climate, physical characteristics of land, the popularity of a sport and even the birth places of athletes even affect the popularity of a sport. As students grow in their level of geographic perspective, they may be able to better understand the Olympics (p. 52-53).

Science The subject of science teaches the interaction between the physical environment and people. Again, we see the importance of geography in science. For example, students should learn where fault lines are located. Science students often investigate the effects of pollution. In order to do that, students need to learn where

pollution is the greatest on earth. We see the need for geographical perspective across the whole curriculum (p. 54-56).

Developing Geographic Literacy

Knowing the importance of geography, there are still many students who are geographically illiterate (Reinhartz and Reinhartz p. 13). In order for students to understand why the United States returned the Panama Canal to Panama, they must first learn geography. An attitude change must occur. Students must not believe it is enough to only know the immediate environment. (Cohen, p. 249). No longer can the focus of geography center on the mere memorization of facts. In Cohen's "Geography—Public Arena", it says,

> Now we could drill into that student's head the location on the map of Cuba, of the Greater Antilles, of the Lesser Antilles, of the entire Caribbean Basin, but if the students does not know the content of the Antilles—their physical settings, their economic resources, and their cultural landscapes, and if the student has no grasp of spatial relationships, the patterns of the islands' socio-political, cultural, and economic links with the rest of the region and the world, then the student is not thinking geographically. Moreover, if the student has no grasp of how distance-decay theory—the curve of drop-off in political, social, and economic interest—affects the American public's attitudes toward different parts of the world, then understanding will occur in a vacuum (p. 249).

Learning the location of place is not the most essential aspect of aspect of geography. Much like learning to read requires more than learning the letters, learning place location leads to analysis of place content (p. 249).

In Reinhartz and Reinhartz's book, *Geography Across the Curriculum*, they list factors have that lead to the geographic illiteracy. First, during the past twenty-five years, geographic education in elementary and secondary schools has decreased. (Reinhartz and Reinhartz, p.14). They also describe other factors that influenced the lack

of concern for geographic education. This involves the history behind United States. Prior to World War I, the United States viewed itself as a distant country from the rest of the world. The United States formed an isolationist view of the world. They did not want to involve themselves in the activities with the rest of the world. After the Civil War, the United States had to involve itself with the world. Then, the United States grew into a world power. However, they lead the world from a distance. The term "isolationist view" describes when one country keeps a distance from the rest of the world. The United States viewed other countries as "lesser" countries. Today, no country can have this attitude because of the interdependence between countries (p. 14).

Decline of Social Education in the Public Schools

The separation of social and physical sciences provides one explanation for the decline of geography. Geography can be placed in both the social sciences and physical sciences. Educators have not been able to find a place for geography. Policy makers and decision makers for years did not see the necessity in spatial analysis. Until they realize the importance of knowing where something is located and why it is located there, no real change occur (Gritzner, p. 265).

Teachers who have a limited knowledge of the subject of geography often find it boring. A teacher, with a limited background in geography and shows a lack of enthusiasm for the subject, usually does not strengthen the geography curriculum. Teachers need to stay aware of the new geographic changes that have occurred in the last decade. (p. 256-266).

In Philippe Pinchemel's book, *New Unesco Source Book for Geography Teaching*, he describes other possible causes for the decline in geographic education.

Pinchemel explains that in the 1950's, a movement called "new geography" began. He described the movement with "a concern for theory, for deductive methods, for quantitative techniques and for helping to solve practical spatial problems" (Pinchemel, p. 4). Geography no longer was seen as a descriptive subject. Some international geographers, researchers, and teachers began to disagree about the subject. Traditional geographers did not agree with the "new geography." They believed it was changing like other social science subjects, which they did not favor as well (Pinchemel, p. 4-5).

Geographic Education in Various States

Two states have developed new and innovation geography programs. Maine has begun two new programs. Alaska has recently developed new geography standards that must be met by educators. The following describes the steps various states are taking to improve geographic education.

Maine States are beginning to place greater emphasis on geographic education. In an article by P. Flood, he describes current geographic education in the state of Maine. A program in Orrington, Maine, called the "Maine Studies Program", has begun at Center Drive Middle School. This is an extensive geographic education program for sixth through eighth grade students. They learn about Maine's history and diverse population. The sixth grade students participate in a program that focuses on mapping, comparing the past and the present, bus tours, and genealogy. Seventh grade students participate in a three-day camping trip. They visit places like the Jackson Lab, the College of the Atlantic, and the Acadia National Park. As a result of this program, students develop leadership, self-reliance, confidence, and an appreciation for the state of Maine. (Flood, p. 31).

Another program in Maine, called "Exchanging Maine's Culture," involves four of Maine's schools. This program includes a multidisciplinary study of the political, cultural, socioeconomic, geographic, and international aspects of Maine and the people who live there. The students participate in field trips, letter and photo exchanges, workshops, and other activities that encourage the appreciation of Maine's similarities and differences. They also come to understand the great diversity within Maine. Geography influences language, fashions, hobbies, ideas, and customs. The French language also influences some parts of Maine. Various parts of Maine have different weather patterns. This project brings students together so that they may better understand each other (p. 32).

Alaska The Alaska State Department of Education has formed state standards for geographic education. Their main standards are as follows:

> A. a student should be able to make and use maps, globes, and graphs to gather, analyze and report spatial (geographic) information.
> B. a student should be able to utilize, analyze, and explain information about the human and physical features of places and regions.
> C. a student should understand the dynamic and interactive natural forces that shape the earth's environments.
> D. a student should understand and be able to interpret spatial(geographic) characteristics of human systems, including migration, movement, interactions of cultures, economic activities, settlement patterns, and political units in the state, nation, and world.
> E. a student should understand and be able to evaluate how humans and physical environments interact.
> F. a student should be able to use geography to understand the world by interpreting the past, knowing the present, and preparing for the future.
>
> (Alaska State Department of Education, p. 3-6).

Geography Assessment Framework for the 1994 National Assessment of Education

Many national groups have tried to set standards in geographic education. One such assessment was the "Geography Assessment Framework for the 1994 National Assessment of Education," developed by the U.S. Department of Education. First, the U.S. Department of Education tested "knowing and doing" skills. These standards addressed the issues of space and place, environment and society, and spatial dynamics and connections. The NAEP tested students to see if they understood how space and place related to place on the Earth. They also used questions that tested about how the natural world and the people who live in this world interacted. They also used questions that tested with the interaction of people, places, and regions and how they rapidly change (National Assessment Governing Board U.S. Department of Education, p. 5).

Next, the U.S. Department of Education tested thinking skills. Students should be able to answer two questions: Why is it there and how did it get there? This involves using observing and recall skills. Next, they should use their understanding skills to answer the following three questions: why is it there, how did it get there, and what is its significance? Lastly, by using their applying skills, students then apply this knowledge and understanding to solve geographic problems. All of these types of questions use classifying, hypothesizing, inductive, deductive reasoning, and problem (p. 5-6).

Geography for Life: 1994 National Geography Standards

Later, the National Council for Geographic Education developed a set of geography standards called *Geography for Life: National Standards 1994.* These standards explained what every American student should learn in geography. They

served as guidelines for teachers, schools, and school districts, to guide their curriculum. These skills allow for higher levels of competency and set expectations that are more challenging for students. These standards contribute to the goals made in the "Educate American Act." This act stated that "all students must learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation's modern economy . . ."(*Geography for Life: National Geography Standards*, p. 9).

The *Geography for Life* standards broke down the components of geography. They believe in 5 essential questions that students should be able to answer. Students learn to ask geographic questions and then acquire geographic information. Next, they should learn to organize this information and later analyze this information. These skills should lead them into answering geographic questions. All of these questions are important and none of them are more important than another one (p. 30).

Geography for Life describes how geographic questions are broken down into smaller skills. In order for students to learn how to ask good questions about the earth, they must develop an ability and willingness to ask. They must be able to contemplate these questions and try to answer them. They must explore why things are the way they are. They must form questions about the world around them. Students must learn to ask "where" and "why" types of questions (p. 42).

Then, in order for students to gain geographic information, they must learn to acquire information about the physical and human characteristics of locations. They seek information about the people that inhabit these locations. In order to answer these types of questions, students must read and interpret all kinds of maps. They should learn how

to collect data from various types of resources like interviews, fieldwork, reference material, multimedia, photographs, statistics, and various other sources. Field work involves students performing research in their community. This makes studying geography more relevant to their own lives (p. 43).

Next, students should learn how to organize this type of information in a systematic way. Graphs, climagraphs, diagrams, tables, and other types of forms are all creative and visual ways to arrange data. Design is essential in creating maps, graphs, and charts that display geographic information. Creating maps could even include making simple sketch maps, maps with symbols, and maps that describe land resource or even income (p. 43).

Lastly, in order to analyze geographic information, students must find patterns, relationships, and connections in their data. Students compare and contrast land types, recognizes patterns, and make inferences from maps and other reference tools. In order for students to really analyze data, this takes time and dedication in understanding maps and spatial patterns. They must discover all the various relationships that geography holds. Then, the student can answer questions to geographic problems (p. 43).

Understanding space is the first step in students understanding people, places, and environments. Geography explores the spatial dimension of the earth, as history explores the temporal dimension. In order for students to really understand geography, they must understand where they are in relation to space and place (p. 31). Listed below are the standards *Geography for Life* developed.

Standard 1 In order for students to understand the world spatially, students should learn how to use maps, globes, graphs, diagrams, photographs, almanacs, gazetteers,

geographic dictionaries, and other geographic tools to acquire and report information. Maps are an essential tool in teaching geography. Maps that use point, area symbols, and color show the relations of the earth's features. Maps represent rivers, seacoasts, roads, and towns. They even represent features such as subway systems, tunnels, and geologic formations. They also can represent abstract features such as political boundaries, population densities, and latitude and longitude lines. However, maps do pose problems. No single map can accurately depict all the Earth's features. Students must learn that maps are often distorted. Globes represent the overview of Earth and they show locations, spatial patterns, and the Earth-Sun relationship. However, one can only view half of the Earth at one time. Along with maps and globes, students can use diagrams, aerials, and photographs to gain essential information. Geographic reference tools are also very helpful. As students learn more about the Earth, maps become more abstract and the students increase the types of maps they can read (p. 63).

Standard 2 Students develop mental maps to organize information about the world around them. Students learn to form mental maps about people, places, and environments. A mental map is in a personal representation of the physical and human features of the Earth. It helps the student understand these spatial patterns. Mental maps are both subjective and objective. They are objective in that people know where oceans, continents, countries, cities, and mountain ranges are located. They are subjective in that the size, shape, and location of these locations may not be completely accurate. All people use mental maps, even if they are not aware of it. They allow people to move around in this world (p. 64-65).

Standard 3 As students grow in their geographic knowledge, they must analyze information about the earth's surface. This involves "knowing and applying" geography (*Geography for Life*, p. 66). Students answer the questions what, where, when and why. This type of geographic questioning has already been discussed earlier in this chapter. Student analyze movement and flow, diffusion, cost of distance, hierarchy, linkage, and accessibility to answer various types of geographic questions. Good questioning is essential in geography and the understanding of the Earth. The Earth is filled with patterns. In order to understand the geography of the Earth, students should ask good questions to understand the patterns that make up the world (p. 67-68).

Standard 4 Another essential skill in geography is the understanding of places and regions. Students learn why places are the way that they are, and how places effect the way people live. People connect themselves to place and location. A geograhically informed person understands how places are formed, their meanings to people, and their effect of the entire world. Each place has distinctive characteristics that distinguish itself from another place. Physical charcteristics include climate, landforms, oils, vegetation, and animal life. Human characteristics include language, religion, political systems, populations, economic systems, and quality of life. Places change and rarely stay the same, which causes consequences. When a place changes, the relationships to that place also change. Places change in population size, economics, climates, empires, government, and so forth. A key in understanding geography is understanding how place influence people. Again, personal indentity, community identity, and national identity forms when people develop an attachment to a place. If students gain a real

understanding of place, then they can begin to understand the similiarities and differences of people around the world (p. 66-67).

Standard 5 Students must learn how regions are created and how to analyze the complexity of the earth. Each region holds different characteristics that set it apart from other regions. Often regions are organized by physical and human characteristics. Regions can be very small, or cover thousands of square miles.

There are three basic types of regions. The first region, called the formal region, which share common characteristics such as common language, religion, nationality, political identity or even a culture. They can also share the same type of climate, landform, or vegetation. Countries, states, and counties also are considered formal regions (p. 71).

Other types of regions, called the functional region, are arranged by a similar focal point. For example, a community focuses around a particular transformation system. Restaurants and shopping plazas often center around a shopping mall. Metropolitan areas often have these types of regions (p. 71-72).

People construct the perceptual regions, the last type region. These regions are organized by people's perceptions of an area. Often they reveal people's mental maps of a given area. The "Dixie" is an example of this type of region. No one really has a clear picture of where "the Dixie" begins and ends. People create this region in their minds.

As *Geography for Life* describes, regions help people organize detailed information. They also provide ways to ask good geographical questions. When a student understands regions, then she or he can begin to apply geographic knowledge to solve problems. Their understanding of the world also increases. It begins as they

understand their immediate world and then progresses into understanding the entire world (p. 72).

Standard 6 Another aspect of geography deals with people's perceptions of places and regions. Often one's own culture and experiences affect their interpretation or opinions of another place. People live in a variety of cultures. These cultures often reflect the similar values in age, sex, class, language, ethnicity, race, and religion. These values influence their beliefs about other cultures and societies (p. 73).

People's personal experiences also affect their perception of a place. Some might find one place exciting and fun. Another person might find it dull and boring. These perceptions tend to change. However, people's attitudes about a particular place change as the environment and times change (p. 74).

Standard 7 Physical processes change and that shapes the patterns of the Earth. These physical processes are divided into four of the following categories: processes that operate in the atmosphere (like climate); those operating in the lithosphere (like erosion or plate tectonics); those operating in the hydrosphere (like the circulation of the oceans); and the operating of the biosphere (like the plant and animal communities). As one begins to understand these four areas, it brings the person back to answering geographic questions. What does the surface of the Earth look like? How have land features formed? How do these features form and do they act? Why do these features change? How have these features acted in the past? How are they acting now? How will they act in the future? These forces are continually changing the Earth. A geographically literate person understands this concept. When deciding to buy a house on the coast of North

Carolina, one will consider the possibility of their safety because of hurricanes. Understanding this concept even traces back to understanding foreign trade (p. 75-76).

Standard 8 Different ecosystems shape the Earth. Students need to learn that "the characteristics and spatial distribution of ecosystems on Earth's surface (p. 77). A community consists of different plants and animals that live together. These communities interact with the physical environment, which can cause the modification of the Earth (p. 77).

The Earth is a web of production and consumption cycles. The atmosphere gives solar energy, chemical energy, and water to plants. Then, the plants help purify the water for the atmosphere. Soils and root systems help keep plants and animals alive. This system helps in recycle chemicals, distribute wastes, and distribute pests so that all living things on the Earth may live. However, humans can alter these systems. The construction of oil pipelines in the tundra environments threatens the caribou herd, which the Innuit population needs in order to live (p. 78).

Students learn how ecosystems function. This understanding will help people create principles for environment management. Students learn how all living and nonliving systems on the Earth are dependent upon each other. This understanding also helps them form wise decisions about the environment. They can predict the possible outcomes of these decisions, and take responsibility for their decisions. Varying points of view about the environment will always exist. Understanding ecosystems will help them question the different points of view (p. 78).

Standard 9 Students also learn the "characteristics, distribution, and migration of human populations on the Earth's surface" (p. 79). These three forces are the greatest

causes for both human and physical events. Such human events include social, cultural, political, and economical events. Physical events include such problems as flooding, resource depletion and ecological breakdowns (p. 79).

As students understand the interaction between humans and their environment, they begin to understand the factors involved in human populations.

> The distribution and density of Earth's population reflect the plant's topography, soils, vegetation, and climate types (ecosystems); available resources; and level of economical developments. Factors such as education (especially of women), religion, telecommunications, urbanization, and employment opportunities influence population growth rates. The availability of medical services, food, shelter, health services, and the overall age and sex distribution of the population influence mortality rates (*Geography for Life*, p. 79).

Another key element in population includes the concept of growth, which encompasses fertility, mortality, birth rates, death rates, and the population structure. As the population of the Earth grows, people move from one place to another. Many people have begun moving into the cities that have better jobs and increased incomes. In some developed countries, people are moving out of the cities, and into suburbs (p. 79).

Another visible characteristic of human populations also includes migrations. It shapes the personality and character of a given place. Some people move to find a better place to live. Others move in order just to find a place to live. Finally, people move because they have no choice and must find a different place to live. Landscape, war, disease, and famine often act as factors that influence where people want to live. As students grow in their understanding of the effects of population, they will better understand geography (p. 80).

Standard 10 Another aspect of geography involves the understanding of the distributions of cultures. The concept of culture includes social structures, languages, belief systems, institutions, technologies, religion, and people groups. A culture characterizes a way of life. It describes how people view themselves and how other people view them. A culture usually has unique ways of living that are different from other groups of people. From culture to culture, the way people use language differs; the role of women differs; economic activities differ; and the celebration of different customs and holidays also differs (p. 83).

Language provides one of the best representations of a culture. Language unites people together. People who share the same language often share the same values and beliefs. It also serves as a way of tracing the history of a culture. Tracing the history of a language includes learning the history of a culture (p. 83).

People's cultures shape the way they use the Earth's land and resources. Culture also effects the way people make decisions. Again, cultures continually change and never stay the same. New cultural traits are always forming. People continually migrate to new areas. Exposing students to a variety of different cultures allows them to understand how different people live. Hopefully, this can reduce world conflicts and rivalry (p. 84).

Standard 11 Students should study "the patterns and networks of economic interdependence on the earth's surface" (p. 85). All countries have different resources, so countries must exchange their resources between countries. Students need to realize the importance of economic systems, transportation, and communication systems and the exchange of goods and materials. Airplanes transport large numbers of people. This

qualifies as an exchange network. The exchange of petroleum from Asia, Africa, and Latin America to the United States is an economic exchange. Countries even trade automobile parts. This also qualifies as an exchange network. The world's population continues to grow and resources become depleted. People continually discover new resources. As students discover the importance of global economic interdependence, they realize that no country can depend solely on her own resources (p. 86).

Standard 12 Various types of human settlements fill the Earth. These settlements hold processes, patterns, and functions that students learn to understand. These settlements differ in size, location, composition, organization, and purpose. Regular human activity continues in settlements. Economic activities, transportation systems, communication systems, political organizations, administrative systems, culture, and entertainment make up each part of a settlement. They can culturally, politically, and economically shape the world. Settlements differ from one region to the next, and even from one culture to another (p. 87)

For example, cities are different around the world. North American cities and European cities are different in size and shape. Each city holds different transportation systems and work patterns. In the United States, wealthy people usually live in the suburbs. On the other hand, wealthy people in Latin America often live in the cities. Again, it is important that students know how human settlements affect geography (p. 87).

Standard 13 Throughout history, countries have competed for both large areas and small areas of the Earth's surface. This has proven to be both productive and destructive. Sometimes this competition has been cooperative, and other times it has

been destructive. Students should study the history behind the competitions for land. Then they will understand organization of the Earth. Different people have organized, divided, and unified the Earth's land. Land conflicts have arisen concerning the control of an area's resources. Conflicts have also arisen due to trade, human migration, settlements, and the exploitation of land and sea. All of these factors effect the study of geography (p. 90).

State sovereignty determines political divisions. All governments recognize that a particular government has the ultimate control over an area of land. The United Nations and its members also recognize these divisions (p. 90). In past years, disagreements involved conflicts about land, but now conflicts exist over the seas and oceans. Divisions in land even occur in school districting within counties. They also exist in voting districts, culture, trade and many other areas. Divisions of the Earth's surface are everywhere (p. 91).

Standard 14 Humans continually modify or change the Earth. With these modifications come both positive and negative consequences. Environmental modifications have economic, social, and political implications. Students then realize that all modifications change the environment. For example, the clearing of land for a settlement provides a home and culture for a group of people. However, this changes the area's physical systems such as the wildlife and vegetation. People produce products like water pollution and hazardous wastes. The consequences of each modification differs in severity (p. 92)

As students learn this concept, they can grow in their understanding of why certain locations experience more desertification and deforestation than other areas.

Students learn the importance of the relationship between human population and urbanization and the changes it brings on the environment. This is a vital concept in understanding geography (p. 93).

Standard 15 Humans have a great affect on the environment. In reverse, the environment has a great affect on humans. Environments vary greatly all over the world. People can live in different types of climates and conditions. However, some areas are more conducive for habitation than others. The concept of carrying capacity describes "the maximum, sustained level of use of an environment that is possible without incurring significant environment deterioration, which would eventually lead to environment destruction" (p. 96). Sometimes, people do not understand this concept. Then, they build places to live that might possibly lead to environment disasters (p. 96).

Humans can alter the effects of the environment on people. Now people who live in hot and warm locations use air-conditioning. People have built dams so they may live near rivers. However, these modifications do cause environmental problems. For example, the use of dams does not allow the rivers to flow needed sediment to the oceans. Erosion also occurs on the riverbanks (p. 96).

Students grow in their understanding of this concept, and then they are able to choose where the best places to live. This involves understanding the "carrying capacity" of each location. Each home only holds a certain amount of people. It can only exist so long before incurring costs (p. 97).

Standard 16 Another important aspect of geography includes "the changes that occur in the meaning, use, distribution, and importance of resources" (p. 98). A resource constitutes as any physical material that is part of the Earth, that people need and value.

The most basic resources include land, water, and air. The value of resources changes from one culture to another culture. Economic terms, legal terms, terms of risk assessment, and in terms of ethics determine the value of a resource. A resource's value also depends on how much people need it and the technology available to extract it from the Earth (p. 98).

Depending if a resource is renewable or non-renewable determines the value of the resource. Renewable resources like plants and animals replenish themselves. Nonrenewable resources, such as coal, oil, and natural gas, do not replenish themselves. They can be used one time. Students learn the importance of the Earth's various resources of the Earth and how to wisely use them (p. 98-99).

Standard 17 Students also should learn how to apply geography to the understanding of history. All places change over time. Even peoples' thoughts and opinions of a place change. How a place influences people even changes. Students must learn how the physical and human characteristics change and why they change. The types of houses in an area change over time. Understanding why the size and style change is also important. Causes include a migration pattern demographic change or economic change. People affect the growth, development, population, and land use of an area. Students learn how this changes over time. In doing this, students are learning history (p. 138).

Peoples' perceptions of a given place change. The depletion of a resource or technology might cause the perception to change. Students must understand that the way people used the Earth in the past affects how people use it today. Past trade routes

also affect trade today. As students learn all of this, they are learning history as well (p. 139).

Standard 18 Students study geography to learn about the past, as well as to learn about the future. As students understand how geographic conditions change, they can predict what will occur in the future. They are able to make wiser decisions concerning population growth and the use of resources. They can predict the future world population and the effects the Earth will experience because of this (p. 140).

1988 Massachusetts Educational Assessment Program

The Massachusetts Educational Assessment Program (MAEP) was one of two testing programs that was undertaken in the state of Massachusetts. This testing program was mandated by Chapter 188 of the Acts of 1985. "The purpose of the assessment program is twofold: to furnish information to improve curriculum and instruction in Massachusetts schools, and to provide reliable results for comparisons at the school, district, and state levels. It does not produce scores for individual students" (Massachusetts Educational Assessment Program, p. 9).

Chapter 188 mandated that all students in grades 3, 7, and 11 be tested. This began in April of 1986. These tests assessed students' abilities in the subjects of reading, mathematics, and science. However, in 1988, another round of testing was given to students in grades 4, 8, and 12. This time grades 4, 8, and 12 were tested. These grades were selected because the National Assessment of Education Progress (NAEP) was testing these grades all over the United States. Massachusetts could compare their students' scores within the state and to national scores. Massachusetts added social studies to their testing to also match the NAEP (p. 9).

The multiple choice test questions that were used came from a variety of sources. Test questions were used from the NAEP so that national comparisons could be made. Other questions were developed for the Massachusetts tests. The test questions ranged from basic skills to higher order skills. They measured what had been learned up unto the grade the students were in presently. If a fourth grader was tested, they were tested in all areas up to a fourth grade level (p. 9). All the test questions were tests to assure that they were fair and relevant to students from various ethnic, racial, and cultural backgrounds (p. 10).

A set of social studies objectives guided the creation of the test questions. These social studies objectives were set by the Board of Education in 1987. The Board created these objectives from survey questioners. A curriculum survey was sent to all schools in Massachusetts. The Board tallied and reviewed the surveys to design the objectives (p. 9-10).

The MAEP tests were administered in individual classrooms. Often the classroom teacher gave the tests. The scores from the tests did not report individual scores. The testing administration was accomplished with "matrix sampling." Since the study did not report individual students' results, students completed only a sample of the tests, in each subject. Each student had 90 minutes to complete the test. A total of 240 social studies questions were answered by fourth (p. 10).

The test questions ranged in mental and cognitive processes. They followed Bloom's taxonomy of cognitive objectives. Students were asked questions that involved only knowledge types of questions. They were asked comprehension questions, which required explaining. Application questions were used that required students to apply

their knowledge to a situation. The students were asked to break down information that required the students to analyze information. Synthesis questions were asked and the students had to piece together their information to create a message. Finally, evaluation questions were used. Students had to make judgments concerning ideas and approaches (p. 11).

The following explains how fourth graders performed on these tests. Other students in grades 8 and 12 did complete the tests. Fourth graders were also tested in other subject areas. However, the results of how fourth graders performed in geography will be discussed. (p. 9).

Fourth graders were tested in physical geography in the areas of place geography, surface features, climate patterns, vegetation, and natural resources. Human geography areas included population density, clustering, cultural geography, effects of geography on life, environmental problems, and human adaptation, and the protection of the earth (p. 10).

The results of the social studies test varied greatly. In the questions about place geography, 83 percent could recognize that the Mississippi River is located in the United States. Seventy-six percent of the student recognized that Massachusetts is located in the northeastern part of the United States. Then, 78 percent recognized Boston on an outlined map of New England. Less than two thirds of the students could identify that Florida was located in the southern part of the United States. Less than half of the students knew that Oregon is located in the west, and that Australia is found in the Southern Hemisphere (p. 10.)

On the human geography questions, 75 percent of the students understood the importance that people living in Egypt find ways to live with the hot and dry weather. However, less than half of the students understood why it was important to study the clothing of the people, in order to understand a country's climate. Eighty-seven percent identified why early settlers built homes near rivers. Sixty percent recognized farming as a typical land use in the Midwestern part of the United States.

In the area of graphic representation, fourth grade students performed well when required to read information from graphs, tables, and charts. However, they performed poorly when required to multi-step (p. 15).

The study identified teachers' attitudes towards geography and how much time they spent teaching social studies. Ninety-one elementary teacher stated "some" emphasis on physical geography. Seventy-one percent of the teachers report spending time on human geography. Of the teachers surveyed, 75 percent spend over fours hours a week teaching reading. Over 50 percent of the teachers spent at least five hours teaching reading. Most of the teacher spent between two to three hours a week teaching social studies. Some teachers spent over three hours (p. 27).

The fourth grade students showed a high level of achievement. They understood other cultures. They were also able to read graphs and various types of reference materials (Massachusetts Educational Assessment Program, p. 37). This might be accredited to the teachers having globes and maps in their (p. 28).

The Massachusetts Educational Assessment Program committee found that reading played an important role in the social studies curriculum. Usually, textbooks were the primary source of social studies instruction, in fourth grade. The survey of

teachers reported that 25 percent of the students had difficulty understanding the textbooks. Students could have not understood the vocabulary used in the test questions. Teachers need to place greater emphasis on reading processes (p. 38).

Existing Research on Geography

In 1971, Buggey tested students in geography. His study included a 108 randomly assigned, second grade students. They were divided into three groups. Two different teaching techniques were tested. One group took a pre-test with 70 percent knowledge level questions and 30 percent higher level questions. Another group took a pre-test with 30 percent higher level questions and 70 percent knowledge questions. The control group did not receive any instruction. The two treatment groups received three weeks of daily instruction. The lessons focused on the concept of location, that was composed of questions dealing with visual materials. On the post-test, the students that received instruction on the predominantly higher-level questions performed higher than the students who received instruction on the predominantly knowledge-level questions. Both of the two groups performed higher than the control group (Buggey, 1971).

Another study in 1976, by the Place Vocabulary Research Project, examined place vocabulary up into 1976. World Basic Place Vocabulary Test developed a 50-item test. It included such topics as a meridian map on oval projection, the five oceans, 32 countries, and 13 major cities. The test was given to 12,5000 thirteen year old students, in thirteen countries. The study showed that students had a limited concept of place vocabulary. Students were not likely to learn the names of places on their own (Saveland, p. 206-210).

In 1978, Rice and Cobb reviewed existing research that had been conducted in the field of geography. They found a wide range of thinking concerning what geographic concepts students could learn. Few studies had taken place. They focused their review of research on map skills and children's conceptual and analytic processes (Rice and Cobb, 1978).

In 1968 and 1974, Crabtree investigated the value of systematic instruction for students in first through third grades. She developed two experimental curricula that focused on the concept of aerial association. The study took 16 weeks and included 12 classrooms. The results of the study showed that students achieve significant higher "at each cognitive level and across levels of symbolic abstractions" (Crabtree, 1974).

In the second study, Crabtree investigated the sequencing of skills.

> To a greater extent than any other research identified, these two investigations . . . provide systematic, valid evidence of young children's potential for learning geographic concepts, map interpretation, skills, and analytic processes. . . . . When young children are active participants in a highly structured and sequential series of geographic inquiries, they can learn complex analytic processes and concepts of geography (Buggey and Kracht, p. 5).

In a more recent study, in 1981, Atkins tested his hypothesis that children did indeed learn through stages of understanding. His study included 22 pre-school children. He divided the class into two groups, one control group and one experimental group. The students were given a pre-test, and they showed no significant difference, in their skill ability. For one month, students received map and globe instruction. The students learned about their immediate environment, globes, maps, distance and scale, symbols, locations, directions, the Earth-Sun relationship, and abstract location. On the post-test, the experimental group performed significantly higher (Atkins, p. 228-233)

Later, the study was repeated in another preschool class. The study was performed identically. The materials were presented in the same way. However, the researcher spent more time reading and playing with the children in both the control group and the experimental group. At the beginning of the study, the pre-test showed that the control group and the experimental group were not statistically different. Next, the students received instruction. After the instruction, the students' performance shows a statistical difference. The experimental group performed higher than the control group. Atkins concluded that young children can learn map and globe skills, provided that instruction is clear and structured (Atkins, p. 232).

Geography Curriculum and Instruction in Three Fourth-Grade Classrooms

In 1990, Stephen J. Thorton and R. Neill Wenger published the results of a study they conducted in the field of geography. The results of the study are found in the articles from *The Elementary School Journal,* called "Geography Curriculum and Instruction in Three Fourth-Grade Classrooms.

The two researchers had three purposes of the study. First, they compared and contrasted teachers' attitude toward geography verses the attitudes of geography reformers. Second, they studied school and district policies and determined how they effected geography curriculum. Third, they reviewed geography instruction (Thorton and Wenger, p. 515). The study investigate "how elementary teachers make curriculum decisions in geography and the character of the resultant curriculum" (Thorton and Wenger, p. 517).

To begin with, Thorton and Neill believed that two philosophies of the field of geography existed. A traditional view of geography places importance only where places

and things are located. A "modern" view of geography is quite different. The Joint Committee on Geographic Education described "modern geography" with the five following fundamental themes: location, place, relationships within places, movement, and regions. However, there have been other similar geography reforms that have failed. Why have they not succeeded? Teachers have not yet implemented these reform ideas in the classroom (Joint Committee on Geography Education, p. 3-10).

The subjects of the study came from a metropolitan school district in the Mid-Atlantic States. The students came from both urban and suburban areas. One-third of the student population were minorities. Most of the students lived in the suburban and urban socioeconomic range (Thorton and Wenger, p. 517).

Three fourth grade teachers volunteered to take part in the study. They were chosen on the high remarks of their principal and assistant principal. They were identified as "good" in classroom instruction and managerial skills. Each teacher had taught more than ten years. Each teacher was carefully interviewed for at least 45 minutes. During the interview, the researchers sought to understand each teacher's conception of geographic knowledge, planning for social studies instruction, and views about the importance of geography instruction (Thorton and Wenger, p. 517).

The school district used the *Silver Burdett Social Studies* series. Each fourth grade used the fourth grade edition of the series, called *States and Regions.* In fourth grade, the socials studies curriculum focuses on United States geography (Thorton and Wenger, p.517).

The researchers used interviews as part of their data collection. The first interviews were conducted before the researchers made classroom observations. The

second interviews were conducted after the classroom observations. During each interview session, the researchers sought to understand why the teachers had planned what they had planned and why they taught the material as they did. The researchers continued to question the teachers to determine their level of knowledge and understanding of geography (Thorton and Wenger, p. 518).

The researchers also interviewed the principal. Their purpose was to understand the school's purpose behind the social studies program. The researchers also interviewed the vice principal. Again, the researchers sought to understand the district and school's philosophy towards geography (Thorton and Wenger, p. 518).

The researchers also used the classroom observations as a method to draw conclusions. The researchers observed 2 to 3 times a week, for 6 weeks. Each observation lasted for 30 minutes at a time. Five classes were used during the observations. Two of the teachers taught two social studies classes a day. The researchers observed to a total of 21 hours. Detailed observation notes were kept and divided between "description" and "comment" sections. All the materials used by the teachers, were carefully examined. Throughout the observation, the researchers kept asking the questions "why" (Thorton and Wenger, p .518). Throughout the observation, the researchers found reoccurring themes throughout the teachers' instruction (Thorton and Wenger, p. 518).

The researchers found that the teachers did not view geography as an individual subject. Instead, it was a part of the total social studies program. One teacher believed that subjects should be integrated. She believed in integrating geography into the other subjects. (Thorton and Wenger, p. 518).

Many factors influenced the teachers' instruction. They believed in map reading and recalling where places are located. None of them had any in-service training in geography and only 1% training in social studies. The school did not place importance on geography. No set social studies objectives had to be met by the teacher (Thorton and Wenger, p. 519).

Time was another factor that effected the teachers' instruction. They did not feel that there was enough time during the day to devote to social studies. Often social studies was taken away to make time for extra school activities. Last, the school placed little focus on developing a well organized social studies curriculum (Thorton and Wenger, p. 521-522).

While the researchers observed actual social studies lessons, they discovered two types of instruction. One teacher's lesson focused completely on low level factual knowledge. The researchers most often observed this type of lesson. The teacher often dominated the teaching with question and answer instruction. Students completed seatwork that focused on facts (Thorton and Wenger, p. 521-522).

The researchers observed another teacher's lesson. It did involve student interaction and more complex subject material. This lesson covered factual knowledge. However, the teacher took time to explain and elaborate on the factual knowledge. She made connections between the factual knowledge and the students' lives (Thorton and Wenger p. 523-524).

The researchers found that the teachers were more concerned with how much geography content they covered, than how well the students understood the material. Review sessions were held the day before a test, which only covered the factual material.

Sometimes, it was clear that the students had misconceptions about the material. However, the teachers did not clear up any of the misconceptions. The teachers did not set high expectations for the students to reach in social studies (Thorton and Wenger, p. 524).

The study was aware that these classrooms were not representative of all fourth grade classrooms. However, they did form conclusions based on their study. In the end, they identified possible problems with the social studies program and improvements that could be made. First, higher geography standards, more teacher in-service, and increased accountability would only produce short-term effects. In the end, real change would not occur. On the other hand, if teachers took ownership of new geography ideas and implemented them into their classrooms, then change would occur. For now, the new ideas do existed, but they are not used by classroom teachers (Thorton and Wenger, p. 525).

The researchers identified three areas that needed improvement in this school. To begin with, the curriculum needed to be more conceptually oriented, than coverage oriented. Again, this relates back to the view of modern geography verses the traditional view geography. This change would only occur when teachers truly believed that social studies was an important subject. (Thorton and Wenger, p. 526).

Next, the evaluation of the students' learning was poor. The teachers only used textbook worksheets and tests to assess the students learning. These tests only measured a limited scope of knowledge and skills that students need in the social studies (Thorton and Wenger, p. 526).

Finally, the researchers reemphasized that worthwhile ideas in geography curriculum do exist. However, these ideas have yet to make their way into the classroom. Only until educators and schools develop a real concern for geographic reform ideas will real change occur (Thorton and Wenger, p. 527).

Future Students

Students today must become adults that understand the world around them. Geographic knowledge and skills help students become effective citizens of the world. Geographic knowledge helps students form intelligent opinions about complex global issues. Geographic knowledge helps people in voting and understanding the government leaders' stands on various issues. People can wisely judge the behaviors of individuals and groups of people. They understand the similarities and differences that exist between societies. Such knowledge reduces stereotypical thinking and leads to ethnocentric thinking. Geographic understanding leads to creative problem solving for from managing a small community, to urban planning, to solving space and transportation problems. Such understanding also increases that local, regional, and national issues link to global issues. Lastly, geographic understanding develops good questioning and the use of maps (Winston, p. 43).

Connections with Daily Oral Geography

Daily Geography, a program designed to increase students' understanding of geography, focuses only on place and location. As students learn where places are located in the world, then students can later go on to develop analyzing skills. *Daily Geography* does not attempt to teach students every geography skill that students must learn. However, it does give students an exposure to maps, globes, and many types of

reference materials. When students to use various reference materials, they become more proficient in research. *Daily Geography* exposes students to geography on a daily basis. It also creates mental maps within the students. They learn distinctive characteristics about the world, and learn the complexity of the world. They begin to understand the different regions that our world has. They learn about various ecosystems. All of this develops through the program *Daily Geography*. This research is described in the standards set by *Geography for Life*. *Daily Geography* serves as a foundation for learning more difficult geography skills later in life.

Chapter 3

METHODS AND PROCEDURES

Selection of Subjects

This study was conducted at an fourth grade classroom, in an elementary school in eastern Tennessee. The school consists of a diverse population averaging 650 students. Many of the students come from an upper, middle socioeconomic range. However, other students were eligible for federally subsided housing programs. During the 1996-1997 school year, 21% of the student population qualified for federal and reduced lunch program. During the same year, the school experienced a 96.74% student attendance. Twenty-four students in the fourth grade classroom participated in this study. Two of these students participated in the resource program. On the third grade Terra Nova tests, 15 students scored in the full mastery level (50-75 percentile) of geographic concepts. Two students scored in the partial mastery level (40-50 percentile) of geographic concepts. Four students score in the non-mastery level (1-39 percentile) of geographic concepts. One student does not speak English as her first language. She was not proficient in English. Another student spoke Vietnamese at home.

Testing Procedures

The class acted as both the experimental group and the control group. The first five weeks served as the control group. On the first day of week one, students completed a geography pre-test and a geography attitude survey. This assessed their geographic

understanding at this time. Then the students participated only in the regular social studies program. At the end of the five weeks, students took a post-test and an attitude test. This reassessed their geographic understanding at this time.

The next five weeks served as the experimental group. At the beginning of week six, students completed another pre-test. This also assessed their geographic understanding and their attitudes towards learning geography. During a five week time period, the researcher used *Daily Geography*. At the end of the five weeks, the researcher gave the students another posttest and attitude survey. This assessed their final geographic understanding and attitudes towards learning geography.

Each pretest and posttest consisted of 25 questions. These questions were gathered from the *Daily Geography* program and the test questions used by *Silver, Burdett, and Ginn*. Combinations of questions were used to test the students' knowledge of geography on a fourth grade level.

Each time the students took a pre-test and post-test, they also answered a geography attitude survey. The survey consisted of 8 questions. The students could choose between three possible responses. Students rank their attitudes toward geography on a "never, sometimes, and always" scale. The survey included an additional area that asks students to write about how well they like studying geography.

Time on Task

The study took ten weeks to complete. The study was divided into two five week periods. For the first five weeks, the class served as the control group. For the second five weeks, the class served as the experimental group. The study took ten weeks to complete.

Statistical Analysis

An independent t-test was used to compare the mean scores on the two pre-tests. A 0.05 level of significance was used to determine if the results were statistically significant. An independent t-test was used to compare the mean scores on the pre-tests. Again, a 0.05 level of significance was used to determine if the results were statistically significant. The pre-tests and post-tests tested effectiveness of the use of *Daily Geography.*

An independent t-test for the attitude survey. The attitude survey tested students' attitudes with the use of *Daily Geography* and without the use of *Daily Geography*. The attitude survey was administered with each pre-test and each post-test. The students completed four attitude tests throughout the study. A 0.05 level of significance was used to determine if the results were statistically significant.

Chapter 4

RESULTS

An independent t-test compared the pre-tests used during *Daily Geography*. The results showed no significance, at a 0.05 level of significance. The use of *Daily Geography* did not increase the students' knowledge and understanding of physical and political concepts in geography over those who do not use this geography program, at the 0.05 level of significance. The use of *Daily Geography* did not change student's attitudes and opinions towards the desire to learn geography, at the 0.05 level of significance. The researcher retains the hypothesis.

TABLE 1

COMPARISON OF THE PRE-POST ACHIEVEMENT

TEST FOR THE CONTROL GROUP

Groups	N	Mean	Mean Difference	Std. Error of Means	T ratio	Sig. 2-tailed
Pre-test 1	17	60.8824	-1.0000	3.4513	-0.290	0.776*
Post-test 1	17	61.8824				

* Not Significant

Table 1 reports that there was not a significant increase in academic achievement in the control pre-test and post-test test comparisons. The researcher retains the hypothesis that the use of *Daily Geography* does not increase the students' knowledge and understanding of physical and political concepts in geography over those who do not use this geography program, at the 0.05 level of significance.

TABLE 2

COMPARISON OF THE PRE-POST ACHIEVEMENT

TEST FOR THE EXPERIMENTAL GROUP

Groups	N	Mean	Mean Difference	Std. Error of Means	T ratio	Sig. 2-tailed
Pre-test	17	64.5294	5.000	2.4808	2.015	.061*
Post-test	17	59.5294				

* Not Significant

Table 2 reports that there was not a significant increase in academic achievement in the experimental pre-test and post-test test comparisons. The researcher retains the hypothesis that the use of *Daily Geography* does not increase the students' knowledge and understanding of physical and political concepts in geography over those who do not use this geography program, at the 0.05 level of significance.

TABLE 3

COMPARISON OF THE PRE-POST ATTITUDE

SURVEY FOR THE CONTROL GROUP

Groups	N	Mean	Mean Difference	Std. Error of Means	T ratio	Sig. 2-tailed
Pre-test	17	17.2353	0.0588	0.4328	0.136	0.894*
Post-test	17	17.1765				

* Not Significant

Table 3 reports that there was not a significant change in attitude in the control attitude pre-test and attitude post-test comparison. The researcher retains the hypothesis that the use of *Daily Geography* will not change students' attitudes and opinions towards the desire to learn geography, at the 0.05 level of significance.

TABLE 4

COMPARISON OF THE PRE-POST ATTITUDE

SURVEY FOR THE EXPERIEMENTAL GROUP

Groups	N	Mean	Mean Difference	Std. Error of Means	T ratio	Sig. 2-tailed
Pre-test	17	17.3529	0.0588	0.3584	0.164	0.872*
Post-test	17	17.2941				

* Not Significant

There was not a significant change in attitude in the experimental attitude pre-test and attitude post-test comparison. The researcher retains the hypothesis that the use of *Daily Geography* will not change students' attitudes and opinions towards the desire to learn geography, at the 0.05 level of significance.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Daily Geography incorporates geography into the daily social studies curriculum, in order to increase students' knowledge and understanding of the physical and political aspects of geography. At the same time, it seeks to raise students' interest in geography. This study tested the *Daily Geography* program in order to determine if it helped students with improve their geography test scores. Each student completed an attitude survey towards geography, with the use of *Daily Geography* and without *Daily Geography*. The study investigated whether the *Daily Geography* program serves as valid program that presents information in order to develop an interest and knowledge in geography.

Conclusions

Implementation of *Daily Geography* The use of *Daily Geography* did not make a significant difference. *Daily Geography* is designed to be used for a full school year. However, the researcher only used the program for five weeks. Due to the limited amount time schedule for the research, the researcher could only use the program for ten weeks. This could have effected the results of the study. *Daily Geography* reviews the geography themes of place and location throughout the entire school year. If the program would have been used for a full school year, then the subjects would have had more exposure to the repetitious themes. This program should only be used in cooperation with the regular social studies program. *Daily Geography* should only review material

that students have been taught. It is not meant to replace regular geography instruction. *Daily Geography* serves only a review of geography.

Possible Reasons for No Significance in the Research The results of the study are typical with the types of scores that individual students receive in class. One student did not speak English as her first language at home. However, this student has grown up in the United States. The student did not score well on the pre-tests and the post-tests. The student has a lower reading ability and this could have been a factor in her ability to understand the tests. The results of the research tests were comparable to the tests the students receive in class.

Some students were not reading on grade level. This could effect their ability to read the tests. The researcher did read each test question and answer to the class. However, the students still could have had difficulty reading the test questions and answers again.

The research took ten weeks to complete. At the beginning of the first week, a pre-test was given to assess the students' abilities in geography. Then, a post-test was given to assess the students' abilities after five weeks. At the beginning of the sixth week, a pre-test was given to reassess the students' abilities. At the end of the tenth week, a post-test was given to assess the students' final abilities in geography. Sometimes, students did better on the first post-test than the second post-test. At the beginning of the year, students were given a cumulative math pre-test. These grades were scored and recorded. At the end of the year, the students completed the same cumulative math test. Often, students performed worse on the final math cumulative tests

than they did on the first cumulative test. The researcher observed the same findings on the *Daily Geography* tests. Students in the class have a difficulty retaining material.

The tests were teacher-created, multiple-choice tests. This was the first time that the researcher had created multiple choice tests. The tests might have been more accurate. The students did well during oral discussion time of the questions. If the students were tested orally over the material, the results might be different.

Possible Causes for No Attitudinal Change Using *Daily Geography* The attitude survey measures students perceptions of geography without and with the use of *Daily Geography*. The students' perceptions showed no statistical difference. For each question that the students were asked, they could choose three difference answers. The students chose between "always, sometimes, and never." Most students chose "sometimes." The students might have found that the easiest choice was "sometimes." Students seemed to enjoy using *Daily Geography,* even though their attitude surveys do not show this. One specific students particularly enjoyed the study of geography. He did not excel in other subjects at school, and he did not like school very well. However, he was always eager to find the answers to the daily geography questions.

Changes in the Number of Students in the Study Due to two reasons, the number of students involved in the study was shortened from 24 students to 17 students. First, one girl could not read or understand the tests, because she spoke English as a second language. Secondly, a severe illness hit classroom. Five students were out of class during the instruction. They missed either one pre-test or post-test. They also missed instruction. These students were excluded from the study.

Geography Instruction in the Classroom Teachers should make geography more relevant to the lives of his or her students. *Daily Geography* does not relate material to the students' lives. The classroom teacher should accomplish this. Learning isolated geography facts will not develop an interest within students to learn the world around them. Instead, geography learning should be first tied to the students' lives. Then, it should be expanded to the community around them. Next, it should be expanded to their state and country. Finally, it should be expanded to the world. A teacher must begin with what the students already know about geography. The teacher must build upon the experiences of the students, and then lead them into learning new skills. *Daily Geography* did not do this. However, this is not the intent of the program. The students might not have been familiar with the geography of their our communities, in order to understand the geography of the United States.

Recommendations

Integrating Geography Across the Curriculum Like all subjects, geography facts should not be taught in isolation. *Daily Geography* teaches the subject matter in isolation. The students do not see how it is involved in other subjects. It is best learned when it is integrated with other subjects. Again, this provides more meaningful learning for the students. Geography should be integrated language arts, science, art, and music. Then, learning will become more effective.

Replicating the Study Changes should be made in order to replicate this study. First, *Daily Geography* would be used throughout the entire school year. This might provide different results than the results that the researcher found. Next, the researcher suggests the use of a standardized geography test to assess learning. The tests could be

teacher created tests, but they need to be checked for validity and reliability. The researcher should integrate geography and social studies learning into other subjects. The participants in the study should be required to use more reference tools, in order for hands-on learning to take place.

BIBLIOGRAPHY

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BOOKS

Pinchemel, P. (1982). The Aims and Values of Geographic Education. Paris: Longman Group Limited.

Reinhartz, D., & Reinhartz, J (1990). Geography Across the Curriculum. Washington, D.C.: National Education Association of the United States.

JOURNALS

Atkins, C.L. (1981). Introducing Basic Map and Globe Concepts to Young Children. *Journal of Geography* 80, 228-233.

Binko, J., & Neubert G. (1986). Geography's Renaissance. Teaching Geography in the Disciplines (1st ed., pp. 7-64). Bloomington, IN: Kappa Educational Foundation .

Buggey, J., & Kracht, J. (1986). Geographic Learning. National Council for the Social Studies, 55-65.

Cohen, S. (1988). Geography--Public Awareness and the Public Arena. Social Education, 52(4), 248-250.

Dulli, R. ,& Goodman, J. (1994). Geography in a Changing World: Reform and Renewal. NASSP Bulletin, 19-24.

Flood, P. (1994). Maine Students Learn to Appreciate Diversity. NASSP Bulletin, 30-33.

Gritzner, C. (1991). Geographic Education--Where Have We Fail? Journal of Geography, 80(7), 264-266.

Saveland, R. (1983). Map Skills around the World. Social Education, 47 206-210, Cited by Buggey, J, & Kracht, J. (1986). Geographic Learning. National Council for the Social Studies, 61.

Thorton, S. and Wenger, N. (1990). Geography Curriculum and Instruction in Three Fourth-Grade Classrooms. The Elementary School Journal, 517-531.

POSITION PAPERS

Alaska Standards: Content Standards for Alaskan Students. Alaska State Department of Education (June, 1996).

Buggey, J. (1971). A Study of the Relationship of Classroom Questions and Social Studies Achievement of Second-Grade Students. Unpublished doctoral dissertation, Cited by Buggey, J. & Kracht, J. (1986). Geography Learning. National Council for the Social Studies, 60.

Crabtree, C. (1974). Children's Thinking in the Social Studies. Part 1: Some Factors of Sequence and Transfer in Learning the Skills of Geographic Analysis, Cited by Buggey J. & Kracht, J. (1986). Geography Learning. National Council for the Social Studies, 58.

Geography for Life: National Geography Standards. (1994). American Geographic Society. Washington, D.C: National Geographic Research and Exploration.

Rice, C. & Cobb, R. (1978). What Can Children Learn in Geography?: A Review of the Research, Cited by Buggey, J. & Kracht, J. (1986). Geographic Learning. National Council for the Social Studies, 58-59.

The Massachusetts Educational Assessment Program: Social Studies Report. (1988). Massachusetts Educational Assessment Program. Boston, Massachusetts: Massachusetts State Department of Education. Boston, Massachusetts:

Winston, B. (1986). Teaching and Learning in Geography. National Council for the Social Studies, (78), 43-57.

BROCHURES

National Assessment Governing Board U.S. Department of Education (1994).Preparing Citizens for the 21st Century: Geography Learning about our World (1st ed.). [Brochure]. Washington, D.C.

APPENDICES

KNOX COUNTY SCHOOLS
ANDREW JOHNSON BUILDING

Allen Morgan, Superintendent

September 23, 1998

Ms. Jennifer Canatsey
Johnson Bible College
Box 152
Knoxville, Tennessee 37998

Dear Ms. Canatsey:

You are granted permission to contact appropriate building-level administrators concerning the conduct of your proposed research study entitled, "A Comparison of Students' Understanding of Political and Physical Aspects of Geography with the Use of the *Daily Geography*." In the Knox County schools final approval of any research study is contingent upon acceptance by the principal(s) at the site(s) where the study will be conducted.

In all research studies names of individuals, groups, or schools may not appear in the text of the study unless *specific* permission has been granted through this office. The principal researcher is required to furnish this office with one copy of the completed research document.

Good luck with your study. Do not hesitate to contact me if you need further assistance or clarification.

Yours truly,

Samuel E. Bratton, Jr.

Samuel E. Bratton, Jr., Ed.D.
Coordinator of Research and Evaluation
Phone: (423) 594-1740
Fax: (423) 594-1709

Project No. 908

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APPENDICES B

West Hills Elementary

December 9, 1998

Dear Parents:

Hello. My name is Jennifer Canatsey. I am Mrs. Gilreath's intern for this school year. I have met some of you, but I have not yet met all of you. I am enjoying working in your child's class. It is a good clas and I am learning so much. First, I am a graduate student at Johnson Bible College. For a part of my work, I must complete a full year internship. Along with the internship, I must also complete a research project. That leads me to my next point.

Next semester, I will begin a study using *Daily Oral Geography*. This is much like the *Daily Oral Language* program that Mrs. Gilreath is already using in the classroom. It is published by the same group, and is set up the same way. I would like your permission to use your child in my study. This requires no extra effort on your part. I will given the class two geography questions every day, and they must find their answers. They are allowed whatever resources they need to find these answers. Later in the day, we will review the questions and answers. Their answers will be turned in everyday. This will not be for a grade; however, they will be learning great geography skills. This will not take ways from the regular social studies program.

During this next six weeks, I will not begin using the *Daily Oral Geography* program. I will give the class a geography pre-test at the beginning of the six weeks. Then, at the end of the six weeks, I will give the class a geography post-test. This will assess their current geography knowledge. During the following six weeks, I will give the same pre-test. I will also use *Daily Oral Geography*, during this time. Finally, at the end of that six weeks, I will give the last post-test. My purpose of this study is to test the effectiveness of *Daily Oral Geography*. With each test, the students will complete an attitude survey concerning geography.

This is a simple project, and I know your child can only can benefit from *Daily Oral Geography*. I would like to have your written permission to use your child in my study. In my report of this study, your child's name will be used. I will only use the class as a whole to compare how the students did during both six weeks. Please fill out the parent permission form on the next page. I would appreciate the letter turned in by December 15, 1998

Thank you for your help by filling out the release form. Again, I em enjoying working in Mrs. Gilreath's class. Hopefully, I will get an opportunity to meet you all soon. Have a good New Year.

Sincerely,

Jennifer Canatsey

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West Hills Elementary

December 9, 1998

I, _____ give my child, _____ permission to participate in Miss Canatsey's study. I have read and understood the terms of this study. I understood how the study will be conducted and how the program *Daily Oral Geography* will be implemented into the classroom. I also understand that *Daily Oral Geography* will not replace the regular social studies program. I will allow my child to participate in this study.

_____
child's name

_____
parent's name

_____
teacher's name

_____
principle's name

APPENDICES D

Geography and You!!

Circle the choice that describes YOU!

1. ---------- male female

2. age---------- 8 9 10 11

3. favorite subject ---------- English

Reading

Math

Social Studies

Science

This is a survey. This will tell your teachers how well you enjoy studying geography. Please help us with your thoughtful answers. You must answer all the questions on these sheets.

1. How well do you enjoy studying geography?

   I **never** enjoy studying geography.

   I **sometimes** enjoy it.

   I **always** enjoy it.

2. Do you think that studying geography is important?

   I **never** think it is important.

   I think it is **sometimes** important.

   I think it is **always** important.

3. Do you think it is important to learn where places are in the United States?

   I **never** think it is important.

   I think it is **sometimes** important

   I think it is **always** important

4. Do you think studying geography is interesting?

   I **never** think it is interesting.

   I think it is **sometimes** interesting.

   I think it is **always** interesting.

5. I enjoy using reference materials, like dictionaries, encyclopedias, maps, atlases, and globes in the classroom.

   I **never** enjoy using reference materials.

   I **sometimes** enjoy using references materials.

   I **always** enjoy using reference materials

6. How well do you think you know geography?

   I **never** know geography.

   I **sometimes** know a little about geography.

   I **always** know about geography.

7. How well do you think you know where places are in the United States?

   I **never** know where places are in the United States.

   I **sometimes** know where places are in the United States.

   I **always** know where places are in the United States.

8. How well do you think you can use reference materials like dictionaries encyclopedias, maps, atlases, and globes in the classroom.

   I **never** can use reference materials well.

   I **sometimes** can use reference materials well.

   I **always** can use reference materials well.

Now you may write how well you like studying geography. Just be honest.

Geography and You !!

Directions: Circle the answer that best fits each question.

1. A model of the earth is called a _____ .

   a. basketball
   b. compass
   c. globe
   d. map

2. Africa, Asia, and Australia are all called _____ .

   a. continents
   b. countries
   c. mountains
   d. oceans

3. The world's largest ocean is the _____ .

   a. Atlantic
   b. Antarctic
   c. Indian
   d. Pacific

4. Directions on a map are shown by a _____ .

   a. boundary line
   b. compass rose
   c. scale
   d. time zone

5. What separates one country from another?

   a. boundary lines
   b. cardinal directions
   c. intermediate directions
   d. meridians

6. The imaginary line around the middle of the earth is called the _____ .

   a. boundary line
   b. compass rose
   c. Equator
   d. North Pole

7. The capital of Connecticut is _____ .

   a. Stamford
   b. Waterbury
   c. Meridian
   d. Hartford

8. Which body of water touches all of the New England states except Vermont?

   a. the Atlantic Ocean
   b. the Connecticut River
   c. Lake Champlain
   d. Long Island Sound

9. Which forms boundaries of the Middle Atlantic region?

   a. Atlantic Ocean and the Mississippi River
   b. Atlantic Ocean and the Great Lakes
   c. Great Lakes and the Delaware River
   d. Mississippi Rivers and the Erie Canal

10. The capital of Pennsylvania is _____ .

    a. Newark
    b. New York
    c. Philadelphia
    d. Wilmington

11. Which two states border Washington?

    a. Idaho and Nevada
    b. Oregon and California
    c. Oregon and Idaho
    d. Utah and Montana

12. A map scale shows _____ .

a. capitals
b. boundary lines
c. distances
d. direction

13. Which mountains stretch from the southern to the northeastern United States?

a. Appalachian Mountains
b. Cascade Range
c. Interior Plains
d. Rocky Mountains

14. Which body of water border Texas?

a. Atlantic Ocean
b. Gulf of Mexico
c. Lake Erie
d. Pacific Ocean

15. Which phrase best describes a coast?

a. flattest surface of a valley
b. highest peak of a mountain
c. land at the bottom of a sea
d. land next to an ocean

16. Which of the following states is found in the West region?

a. Iowa
b. New York
c. Oregon
d. Texas

17. The Continental Divide runs from Canada to _____ .

a. California
b. Mexico
c. Oregon
d. Utah

18. Which mountain range stretch from the northern to the southwestern part of the United States?

    a. Appalachian Mountains
    b. Cascade Range
    c. Interior Plains
    d. Rocky Mountains

19. What water resource is located along the coast of California?

    a. Atlantic Ocean
    b. Lake Superior
    c. Missouri River
    d. Pacific Ocean

20. What body of water borders Georgia?

    a. Atlantic Ocean
    b. Gulf of Mexico
    c. Lake Erie
    d. Pacific Ocean

21. Which of the following states has more land size?

    a. Delaware
    b. Iowa
    c. Maryland
    d. New Hampshire

22. The area with the highest elevations is located mostly in _____ .

    a. California
    b. Colorado
    c. Florida
    d. New Mexico

23. A part of an ocean, sea, or lake that cuts deeply into the land is called a _____ .

    a. bay
    b. glacier
    c. range
    d. river

24. A scale on a map compares _____ .

a. map distances to real distances
b. the resources of different regions
c. the shapes of different regions
d. type of land forms

25. California, Washington, Alaska, and Hawaii are all _____ States.

a. Middle Atlantic
b. Mountain
c. New England
d. Pacific

Geography and You 2!!

Directions: Circle the answer that best fits each question.

1. Which states border Lake Erie?

   a. Illinois, Ohio, Wisconsin, Michigan
   b. Michigan, Ohio, Pennsylvania, New York
   c. Minnesota, Wisconsin, Michigan, Indiana
   d. Wisconsin, Illinois, Indiana, and Michigan

2. What is the capital of Maryland?

   a. Annapolis
   b. Dover
   c. Baltimore
   d. Salisbury

3. Which of the four oceans does not touch the continent of North America?

   a. Atlantic
   b. Arctic
   c. Indian
   d. Pacific

4. What is the northernmost place of Earth called?

   a. Equator
   b. Prime Meridian
   c. North Pole
   d. South Pole

5. Which country borders the United States?

   a. Canada
   b. Florida
   c. South America
   d. Soviet Union

6. Which state is west of Texas?

   a. Louisiana
   b. Colorado
   c. Oklahoma
   d. New Mexico

7. What direction is Alabama from Tennessee?

   a. east
   b. north
   c. south
   d. west

8. Which distance is farther?

   a. California to Colorado
   b. California to Utah
   c. California to Texas
   d. California to Wyoming

9. What country borders Arizona to the south?

   a. Canada
   b. South America
   c. Mexico
   d. Texas

10. What river forms a boundary between Texas and Mexico?

    a. Colorado River
    b. Red River
    c. Rio River
    d. Rio Grande River

11. Which of the following is not a state?

    a. Chicago
    b. Idaho
    c. Missouri
    d. Washington

12. Which state borders Mexico?

    a. Arizona
    b. Florida
    c. Louisiana
    d. Nevada

13. If you are in Dallas, Texas, what direction would you need to travel in order to reach the equator?

    a. east
    b. north
    c. south
    d. west

14. British Colombia is due north of what state?

    a. Alberta
    b. Idaho
    c. Montana
    d. Oregon

15. If you were watching the *San Francisco Giants* by a home game, in what state would you be?

    a. California
    b. Georgia
    c. Indiana
    d. New Mexico

16. What river forms the southern boundaries of Ohio and Indiana?

    a. Indiana River
    b. Ohio River
    c. Wabash River
    d. White River

17. What state is due north of Hawaii?

    a. Alaska
    b. California
    c. Oregon
    d. Washington

18. On a map, what do black dots usually represent?

    a. boundaries
    b. cities
    c. roads
    d. rivers

19. How many states are there in the Untied States?

    a. 50
    b. 51
    c. 52
    d. 53

20. What is the map symbol for a national capital?

    a. circle with a star
    b. dashing line
    c. large dot
    d. large square

21. What ocean is west of North America and South America?

    a. Atlantic
    b. Arctic
    c. Indian
    d. Pacific

22. What is the only Great Lake that is completely within the United States?

    a. Lake Erie
    b. Lake Huron
    c. Lake Michigan
    d. Lake Ontario

23. What is the capital of Texas?

    a. Austin
    b. Dallas
    c. Fort Worth
    d. Houston

24. What ocean is east of where you live?

a. Atlantic
b. Arctic
c. Indian
d. Pacific

25. What United States is found on what continent?

a. Asia
b. Europe
c. North America
d. South America